WHAT IS CLAIMED IS:

1. A monitoring system, comprising:

an acquisition device, the acquisition device comprising,

an input that is configured to receive data from a plurality of sensors coupled to a patient, and

a wireless transmitter that continuously transmits data received by the input; and

a receiving device, the receiving device comprising,

a receiver that receives the data transmitted by the acquisition device, and

an output from the receiver that outputs the data to at least one local host;

wherein the system transmits data from the data acquisition device to the receiving device point-to-point.

2. The monitoring system of claim 1, wherein the acquisition device comprises a plurality of inputs configured to receive data from sensors coupled to the patient.

3. The monitoring system of claim 2, wherein the acquisition device may be switched between a tethered data transmission mode and an untethered data transmission mode.

4. The monitoring system of claim 3, wherein the data acquisition device further comprises a housing configured to be wearable by a patient.

5. The monitoring system of claim 2, wherein

a first input of the acquisition device is configured to receive data from a sensor associated with a type of monitoring, the type of

monitoring selected from a group consisting of electrocardiography, pulse oximetry, cardiac output, end tidal carbon dioxide, invasive blood pressure, non-invasive blood pressure, and temperature; and

a second input of the acquisition device is configured to receive data from a sensor associated with a type of monitoring, the type of monitoring selected from a group consisting of cardiac output, end tidal carbon dioxide, invasive blood pressure, non-invasive blood pressure, and temperature.

6. The monitoring system of claim 2, wherein the plurality of inputs of the acquisition device are configured to receive data from at least three different types of sensors monitoring at least three different parameters.

7. The system of claim 2, wherein the plurality of inputs of the acquisition device are configured to receive data from at least five different types of sensors monitoring at least five different parameters.

8. The monitoring system of claim 2, wherein the receiving device further comprises an alarm.

9. The monitoring system of claim 1, wherein the acquisition device may be switched between a tethered data transmission mode and an untethered data transmission mode.

10. The monitoring system of claim 9, wherein switching the acquisition device between a tethered data transmission mode and an untethered data transmission mode is facilitated by an output on the data acquisition device that allows data and power to be transmitted over a single connection.

11. The monitoring system of claim 1, wherein the acquisition device further comprises a control output configured to allow the acquisition device to control an external device coupled to the patient.

12. The monitoring system of claim 11, wherein the control output is configured to control an external device selected from the group consisting of an intra-aortic balloon pump and a defibrillator.

13. The monitoring system of claim 11, wherein the receiving device is a portion of the local host.

14. A wearable acquisition device for use with high acuity patients, comprising:

at least three inputs that are configured to receive data from a plurality of sensors coupled to a patient that are monitoring at least three different parameters; and

a wireless transmitter that transmits data received by the inputs.

15. The acquisition device of claim 14, wherein at least one of the inputs is configured to receive data from an invasive sensor.

16. The acquisition device of claim 14, wherein the acquisition device may be switched between a tethered data transmission mode and an untethered data transmission mode.

17. The acquisition device of claim 14, wherein the data acquisition device further comprises a housing configured to be wearable by a patient.

18. The acquisition device of claim 14, wherein

a first input of the acquisition device is configured to receive data from a sensor associated with a type of monitoring, the type of monitoring selected from a group consisting of electrocardiography, pulse oximetry, cardiac output, invasive blood pressure, end tidal carbon dioxide, non-invasive blood pressure, and temperature; and

a second input of the acquisition device is configured to receive data from a sensor associated with a type of monitoring, the type of monitoring selected from a group consisting of cardiac output, invasive blood pressure, non-invasive blood pressure, end tidal carbon dioxide, and temperature.

19. The acquisition device of claim 14, wherein the inputs of the acquisition device are configured to receive data from at least five different types of sensors monitoring at least five different parameters.

20. A wearable acquisition device for use with high acuity patients, comprising:

an input that is configured to receive data from an invasive sensor coupled to a patient; and

a wireless transmitter that transmits data received by the inputs.

21. The acquisition device of claim 20, wherein the input is configured to receive data from an invasive sensor selected from the group consisting of an invasive blood pressure sensor, an invasive temperature sensor, and a cardiac output sensor.

22. The acquisition device of claim 20, further comprising a control output configured to allow the acquisition device to control an external device coupled to the patient.

23. The acquisition device of claim 20, wherein the control output is configured to control an external device selected from the group consisting of an intra-aortic balloon pump and a defibrillator.

24. An acquisition device, comprising:

an input that is configured to receive data from at least one sensor coupled to a patient;

a wired transmitter that transmits data received by the input in a tethered data transmission mode; and

a wireless transmitter that transmits data received by the input in an untethered data transmission mode;

wherein the acquisition device has a data transmission mode that is switchable between the tethered data transmission mode and the untethered data transmission mode.

25. The acquisition device of claim 24, further comprising

a wired output slot, coupled to the wired transmitter, configured to receive a wire that facilitates wired transmission of data,

a processing circuit that switches the data transmission mode between the tethered data transmission mode and the untethered data transmission mode when a connection of the wired output slot is made or broken.

26. The acquisition device of claim 24, further comprising a wired output slot, coupled to the wired transmitter, configured to receive a wire that facilitates wired transmission of data and configured to simultaneously receive power from a power source.

27. The acquisition device of claim 24, wherein the wireless transmitter transmits a radio frequency signal.

28. The acquisition device of claim 27, wherein the wireless transmitter transmits signals using a protocol that allows devices within proximity to each other to connect automatically.

29. The acquisition device of claim 28, wherein the wireless transmitter uses Bluetooth technology.

30. The acquisition device of claim 24, further comprising a rechargeable battery adapted to recharge when the data transition mode is in a tethered data transition mode.

31. The acquisition device of claim 24, further comprising a control circuit configured to switch the data transmission mode between the tethered data transmission mode and the untethered data transmission mode such that data transmission is substantially continuous.

32. The acquisition device of claim 24, wherein the wireless transmitter transmits data using a technology that does not require line of sight to transmit data.

33. The acquisition device of claim 24, further comprising a control output configured to allow the acquisition device to control an external device coupled to the patient.

34. The acquisition device of claim 24, wherein the wireless transmitter is configured to transmit data point to point in the untethered data transmission mode.

35. The acquisition device of claim 24, wherein the acquisition device is configured to be wearable by the patient.

36. A data acquisition system for use with high acuity patients, comprising:

an acquisition device, the acquisition device comprising;

a plurality of inputs that are configured to receive data from a plurality of sensors coupled to a patient,

a wired transmitter that transmits data received by the inputs,

a wireless transmitter that transmits data received by the inputs, the wireless transmitter using a technology that does not require a line of sight to transmit data, and

a housing carrying at least some of the components of the acquisition device, the housing configured to be portable by a patient,

wherein the acquisition device has a data transmission mode that is switchable between a tethered data transmission mode and an untethered data transmission mode; and

a receiving device, the receiving device comprising;

a receiver that receives data transmitted by the acquisition device, and

an output from the receiver that outputs data to at least one local host, wherein the system transmits data from the data acquisition device to the receiver point-to-point.

37. The device of claim 36, wherein

a first input of the acquisition device is configured to receive data from a sensor associated with a type of monitoring, the type of monitoring selected from a group consisting of electrocardiography, pulse oximetry, cardiac output, end tidal carbon dioxide, invasive blood pressure, non-invasive blood pressure, and temperature; and

a second input of the acquisition device is configured to receive data from a sensor associated with a type of monitoring, the type of monitoring selected from a group consisting of cardiac output, end tidal carbon dioxide, invasive blood pressure, non-invasive blood pressure, and temperature.

38. The system of claim 36, wherein at least one of the plurality of inputs is configured to receive data from an invasive sensor coupled to a patient.

39. The system of claim 36, comprising a plurality of local monitors that receive data from the acquisition device by way of the receiving device.

40. The system of claim 36, wherein the housing is configured to be wearable by a patient.

41. The system of claim 36, wherein the receiving device is a portion of the local host.

42. A method for monitoring a patient, comprising:

receiving data relating to high acuity parameters from sensors coupled to the patient;

continuously transmitting the data to a local host; and

transmitting the data point-to-point in an untethered data transmission mode.

43. The method of claim 42, further comprising changing a data transmission mode from a tethered data transmission mode to the untethered data transmission mode.

44. The method of claim 42, wherein

the high acuity parameters comprise at least a first high acuity parameter and a second high acuity parameter;

the first high acuity parameter selected from a group consisting of electrocardiograph information, blood oxygen saturation information, cardiac output, invasive blood pressure, non-invasive blood pressure, end tidal carbon dioxide, and temperature; and

the second high acuity parameter selected from a group consisting of cardiac output, end tidal carbon dioxide, invasive blood pressure, non-invasive blood pressure, and temperature.

45. The method of claim 42, wherein at least one sensor is an ECG having at least three leads.

46. The method of claim 42, wherein at least one sensor is an ECG having at least ten leads.

47. The method of claim 42, wherein the high acuity parameters include at least four different parameters.

48. The method of claim 42, wherein the high acuity parameters comprise ECG, blood oxygen saturation, and at least one other parameter.

49. The method of claim 42, further comprising transmitting the data to a monitor over a network.